

Application No. 10/031,628
Amendment Dated June 23, 2004
Reply to Office Action of February 4, 2004

REMARKS

The Office Action mailed February 4, 2004 has been carefully considered by Applicant.

In the Office Action, the Examiner notes that the numbering of the claims is not in accordance with 37 CFR §1.126, which requires the original numbering of the claims to be preserved throughout prosecution. Applicant is unsure as to where the noted discrepancy in the claims has arisen. The application as originally filed in the United States included claims 1-9. By Preliminary Amendment dated January 15, 2002, Applicant amended claims 1-4 and 6-9, and added claim 10. According to the Applicant's records, claims 1-10 are pending in the present application. No re-numbering of the claims should be necessary. After reviewing the above papers, if the Examiner has questions or comments, he is encouraged to contact the unsigned attorney.

The drawings have been objected to because of several informalities, as well as the requirement that Figs. 1 and 2 be labeled as "prior art". By the present Amendment, amended drawing Figures 1 and 2 are submitted. The amended drawing figures are believed to overcome the draftsperson's report and the objections set forth in the Office Action.

Claims 1-9 have been rejected under 35 USC §103(a) as being unpatentable over Barcia et al U.S. Patent No. 3,174,645 in view of British Patent No. 1,050,635, Grabowski et al U.S. Patent No. 3,334,785, Kohler U.S. Patent No. 2,904,215 and Hamilton U.S. Patent No. 4,770,594.

The present invention relates to a storage and retrieval system that is extremely simple to use, requires minimal additional area for retrieval, and provides speedy access to all of the stored items. The system comprises at least one storage tray comprising plural storage holes; and a gas supply manifold for supplying pressurized gas to at least one gas supply port. The tray can be moved with respect to the manifold in order to align a selected storage hole in the tray with the port such that pressurized gas can be applied to the selected hole via the port in order to allow controlled movement of the container

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storage in the selected hole to a position in which it can be retrieved from the tray. The system can be arranged either to retrieve and store single containers or, alternatively, to remove a group of containers quickly without any particular need for a fixed sequence in which they are retrieved.

Barcia et al '645 is directed to a relatively complex ejector device capable of pneumatically ejecting thin, flexible members (10). A storage bin (12) has a series of chambers (14) into which the strips (10) are mechanically inserted. A channel (30) connects the rear of each chamber (14) to the back surface (31) of bin (12). An airgun (32) is systematically positioned behind each channel (30) to pneumatically blow each member (10) (one-by-one) out of the chamber (14). Alternatively, the bin (12) is movable in a vertical plane to position the proper channel (30) in line with the airgun. Column 3, lines 27-35.

The Examiner correctly states that Barcia et al '645 generally relates to a storage system that utilizes pneumatic air pressure but that fails to teach a system that provides controlled movement of a storage tray to align a selected storage hole in the tray with a port such that pressurized gas can be applied to the selected hole via the port in order to allow controlled movement of a container storage in the selected hole to a position in which it can be retrieved from the tray. In fact, Barcia et al '645 fails altogether to teach or suggest movement of the trays or the use of container storage. Applicant however disagrees with the Examiner's assertion that such a system is rendered obvious by Barcia et al '645 in combination with any or all of the following prior art references.

Grabowski et al '785 is directed to a three-dimensional file system having a plurality of cells, each containing film or tape strips. The cells constitute file storage containers. Column 2, lines 54-55. A series of baffles (65-68) are positioned to selectively direct pneumatic air pressure in the X-, Y-, and Z-direction to move a desired cell into an output transport path and to ultimately discharge the cell. Grabowski et al '785 teaches directly against a system comprising a tray that is arranged such that it can be moved with respect to the manifold in order to align a selected storage hole in the tray

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with the port such that, in use, pressurized gas can be applied to the selected hole via the port in order to allow controlled movement of a container storage in the selected hole to a position in which it can be retrieved from the tray. Conversely, Grabowski et al '785 teaches the use of baffles (60-69) to re-direct pneumatic air pressure in the X-, Y-, and Z-direction. Certainly, the combination of Barcia et al '645 and Grabowski et al '785 fails to render obvious the storage and retrieval system as defined by claim 1.

British Patent No. 1,050,635 simply describes a plastic film container. This reference is not entirely relevant to the present application, as it does not relate to a storage and retrieval system, but simply discloses a foamed plastic container.

The Examiner further cites Kohler '215 and Hamilton '594 as disclosing a circular tray and plural ports, respectively. For clarity, Applicant further asserts that these references also fail to teach or suggest the invention of claim 1. Kohler '215 fails to teach or suggest an arrangement in which individual selection of specific containers is possible. Hamilton '594 does not relate to a storage device at all, but rather relates to a device for releasing sort plugs from compartmentalized trays. This reference does not teach or suggest the system of claim 1.

In light of the above remarks, the combined prior art references do not teach or suggest the storage and retrieval system of claim 1, wherein the storage tray is arranged such that it can be moved with respect to the manifold in order to align a selected storage hole in the tray with the gas supply port such that pressurized gas can be applied to the selected hole via the port in order to allow controlled movement of a container storage in the selected hole to a position in which it can be retrieved from the tray. Because the requisite teaching or suggestion is not present in the cited references or a combination thereof, the invention of claim 1 is not rendered obvious.

Applicant notes that the mere fact that various structures shown in the prior art could potentially be selected, combined, and modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In reality, the Office Action merely sets forth a list of

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patent references which the Examiner has indicated contain various structures of the claimed invention. These references however do not provide the necessary motivation, teaching or suggestion to combine these structures to form the claimed system.

In addition, the cited references, namely, Barcia et al '645 (pneumatic ejecting of film chips), Grabowski et al '785 (pneumatic ejection of photographic material) and British Patent '635 (foamed plastic container) do not recognize the necessity of achieving simplicity in a mass storage system, limiting the system area required for retrieval, or expediting speedy access to one or a plurality of stored items. None of the references can be arranged to either retrieve and store single containers or, alternatively, to remove a group of containers quickly without any particular need for a fixed sequence in which they are retrieved. On the contrary, the object in Barcia et al '645 is to provide means for pneumatically ejecting a flexible member without causing instability or vibration thereof. Col. 1 Lines 62-63. The object in Grabowski et al '785 is to provide a "switching arrangement" to pneumatically select a desired cell and move it into an output transport path. Col. 1 Lines 58-62. The object in British Patent No. 1,050,635 is simply to provide a container made of foamed plastics. Page 1, lines 69-86. Thus, the desirability of the combined elements of the system of claim 1 is taught nowhere in the art. It is only by the disclosure of the present application that such a system is seen as desirable. However, the Examiner may not use the present application as a basis for the motivation to combine prior art to arrive at the claimed invention. Such a combination would be based on impermissible hindsight, and is thus an improper basis for rejection.

In light of the above arguments, claim 1 is believed allowable over the applied references. Such action is respectfully requested.

Claims 2-10 depend directly or indirectly from claim 1 and are thus believed allowable for the reasons stated above, as well as the subject matter recited therein.

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The present application is thus believed in condition for allowance with claims 1-10. Such action is respectfully requested.

Respectfully submitted,

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